

Applicant: Elsa A.J.M. GOULMY
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IN THE CLAIMS:

Please rewrite the claims as set forth below:

1. (Canceled)
2. (Previously Amended) Method for typing of alleles of the Minor Histocompatibility Antigen HA-1 in a sample, the method comprising detecting polymorphic nucleotides in the cDNA or genomic nucleic acids of said alleles, thereby typing the alleles, wherein said alleles are HA-1 H or HA-1 R alleles, or a combination thereof with a sequence as shown in SEQ ID NOS 17 or 19.
3. (Previously Amended) Method for genomic typing according to claim 2, the method comprising:
 - a. contacting the genomic polynucleic acids in the sample with at least one pair of primers, whereby the 5'- and /or the 3' primer of said at least one pair of primers specifically hybridize to target regions comprising polymorphic nucleotides in said alleles, and performing an amplification reaction;
 - b. for each of said at least one pair of primers detecting whether or not in step a. an amplification product is formed;
 - c. inferring from the result of step b. which HA-1 allele is present in said sample.

4. (Previously Amended) Method according to claim 3, wherein the at least one pair of primers comprises a 5'-primer that specifically hybridizes to a target region comprising the nucleotides at position 4 or at positions 4 and 8 in the HA-1 allele, or said at least one pair of primers comprises a 3'-primer that specifically hybridizes to a target region comprising the nucleotides at position 8 or at positions 4 and 8 in the HA-1 allele, with said positions being indicated in SEQ ID NOS 17 and 19.
5. (Amended) Method according to claim 4, wherein the 5'-primer is combined with a 3'-primer specifically hybridizing to a target region in intron a, and/or [said] the 3'-primer that specifically hybridizes to a target region comprising the nucleotides at postion 8 or at positions 4 and 8 in the HA-1 allele is combined with a 5'-primer specifically hybridizing to a target region in exon a, with intron a and exon a being indicated in SEQ ID NOS: 21-22.
6. (Amended) Method according to claim 5 [6], wherein the primers are SEQ ID NO 2, SEQ ID NO 3, SEQ ID NO 4, SEQ ID NO 5, SEQ ID NO 6, or SEQ ID NO 7.
7. (Amended) Method for genomic typing according to claim 2, the method comprising:

- a. amplifying a fragment of said alleles, with said fragment comprising at least one polymorphic nucleotide, by use of at least one pair of primers specifically hybridizing to conserved target regions in said alleles;
 - b. hybridizing the amplified product of step a. to at least one probe specifically hybridizing to a target region comprising one or more polymorphic nucleotides in said allele;
 - c. inferring from the result of step b. which [wich] HA-1 allele is present in said sample.
8. (Previously Amended) Method according to claim 7, wherein the at least one pair of primers comprises a 5'-primer specifically hybridizing to a conserved target region in exon a and/or a 3'-primer specifically hybridizing to a conserved target region in intron a, with exon a and intron a being indicated in SEQ ID NOS: 21-22.
9. (Previously Amended) Method according to claim 7, wherein the at least one probe specifically hybridizes to a target region comprising the nucleotides at position 8 and/or 4 in the HA-1 allele, with said positions being indicated in SEQ ID NOS 17 and 19.
10. (Previously Amended) Method according to claim 7, wherein the primers are SEQ ID NO 2, SEQ ID NO 8, SEQ ID NO 9, or SEQ ID NO 10, and/or

the probes are SEQ ID NO 11, SEQ ID NO 12, SEQ ID NO 13, SEQ ID NO 14, SEQ ID NO 15, or SEQ ID NO 16.

11. (Amended) [A primer for genomic typing of alleles of the Minor Histocompatibility Antigen HA-1 capable of specifically binding to] An isolated nucleic acid molecule consisting of the sequence of SEQ ID NO 1, SEQ ID NO 17, or SEQ ID NO 19 or the complement of SEQ ID NO 1, SEQ ID NO 17, or SEQ ID NO 19 [under stringent conditions].
12. (Cancelled)
13. (Canceled)
14. (Original) A method for genomic typing of alleles of the Minor Histocompatibility Antigen HA-1 according to claim 2 by means of sequencing said allele.
15. (Amended) A [diagnostic] kit comprising an isolated nucleic acid molecule consisting of the sequence of [for typing of alleles of the Minor Histocompatibility Antigen HA-1 according to claim 3, with said kit comprising:
 - a. at least one primer capable of specifically binding to] SEQ NOS 1, 17 or 19 or the complement of SEQ ID NOS 1, 17 and 19 [under stringent conditions, an isolated nucleic acid displaying at least 90% homology

to the isolated nucleic acid or a fragment of the polynucleic acids of about 5 to 50 nucleotides long that can be used as a primer or a probe for HA-1 typing;

- b. optionally, an enzyme and/or reagents enabling the amplification reaction; and
- c. optionally, means enabling detection of the amplified products].

16. (Amended) A diagnostic kit [for typing of alleles of the Minor Histocompatibility Antigen HA-1 according to claim 7, with said kit] comprising:

- a. at least one primer, wherein the primer is SEQ ID NOS 2, 8, 9 or 10;
- b. at least one probe, wherein the probe is SEQ ID NOS 11, 12, 13, 14, 15 or 16; and
- c. optionally, an enzyme and/or reagents enabling the amplification reaction, and/or reagents enabling the hybridization reaction.

17. (Amended) A diagnostic kit [for typing of alleles of the Minor Histocompatibility Antigen HA-1 with said kit] comprising:

- a. at least one primer wherein the primer is SEQ ID NOS 2, 8, 9, or 10; and
- b. optionally, an enzyme and/or reagents enabling the amplification reaction, and/or reagents enabling the sequencing reaction.

18. (Cancelled)

19. (Cancelled)

20. (Cancelled)

21. (Cancelled)

22. (Cancelled)

23. (Amended) An isolated nucleic acid molecule consisting of the sequence of
[A probe according to claim 12, wherein the nucleotide sequence of the
probe is] SEQ NO 11, SEQ NO 12, SEQ NO 13, SEQ NO 14, SEQ NO 15, or
SEQ NO 16 or the complement of SEQ ID NO 11, SEQ ID NO 12, SEQ ID
NO 13, SEQ ID NO, 14, SEQ ID NO 15 OR SEQ ID NO 16.

24. (Amended) An isolated nucleic acid molecule consisting of the sequence of
[A probe according to claim 12 consisting of a sequence chosen from the
following list:] SEQ ID NO 11, SEQ ID NO 12, SEQ ID NO 13, SEQ ID NO
14, SEQ ID NO 15, or SEQ ID NO 16 or the complement of SEQ ID NO 11,
SEQ ID NO 12, SEQ ID NO 13, SEQ ID NO 14, SEQ ID NO 15 OR SEQ ID
NO 16.

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Please enter the following new claims:

25. (New) An isolated nucleic acid molecule consisting of the sequence of SEQ ID NO 3, SEQ ID NO 4, SEQ ID NO 5, SEQ ID NO 6, SEQ ID NO 7, or the complement of SEQ ID NO 3, SEQ ID NO 4, SEQ ID NO 5, SEQ ID NO 6 or SEQ ID NO 7.
26. (New) A kit comprising an isolated nucleic acid molecule consisting of the sequence of SEQ ID NO 3, SEQ ID NO 4, SEQ ID NO 5, SEQ ID NO 6, SEQ ID NO 7, or the complement of SEQ ID NO 3, SEQ ID NO 4, SEQ ID NO 5, SEQ ID NO 6 or SEQ ID NO 7.